REMARKS

Applicants have carefully reviewed and considered the Office Action mailed on December 23, 2008, and the references cited therewith.

Claims 1, 6, 9, 12, 15, 17, 21, 24, 26, and 29 are amended and claims 4, 7, 19, 22, 25, 27, and 31 are canceled. Claims 2 and 14 are previously canceled. With no claims being added, claims 1, 3, 5, 6, 8-13, 15-18, 20, 21, 23, 24, 26, and 28-30 are now pending in this application.

§101 Rejection of the Claims

Claims1, 3-13, 15-16 were rejected under 35 USC § 101

Applicants have amended claims 1, 6, 9, 12, and 15 to obviate this rejection. Claims 3, 5, 8, 10, 11, 13, and 16 depend directly or indirectly from respective one of amended independent claims 1, 6, 9, 12, and 15. Therefore, Applicants respectfully request to withdraw the rejection of claims 1, 3, 5, 6, 8-13, and 15-16.

§103 Rejection of the Claims

Claims 1, 3-13, and 16-31were rejected under 35 USC § 103(a) over Katsavounidis et al., (hereinafter referred to as "Katsavounidis") in view of Chien et al., (hereinafter referred to as "Chien").

Katsavounidis describes "decoding of partially corrupted reversible variable length code (RVLC) intra-coded macroblocks and partial block decoding of corrupted macroblocks in a video decoder". Katsavounidis, in column 8, lines 15-20, describes "The errors can correspond to a variety of problems or unavailability including a loss of data, a corruption of data, a header error, a syntax error, a delay in receiving data, and the like. Advantageously, the process of FIG. 3 is relatively unsophisticated to implement and can be executed by relatively slow decoders". Further, Katsavounidis, in column 8, lines 25-37, describes "The process proceeds from the first decision block 304 to a first state 308 when the error relates to an intra-codedmacroblock. When the error relates to a predictive-coded macroblock, the process proceeds from the first decision block 304 to a second decision block 312. It will be understood that the error for a predictive-

coded macroblock can arise from a missing macroblock in a present frame at time t, or from an error in a reference frame at time t-l from which motion is referenced". Furthermore, Katsavounidis, in column 6, lines 45-65, describes "a sequence of frames. A video sequence includes multiple video frames taken at intervals". Moreover, Katsavounidis, in column 7, lines 20-35, describes "The MPEG-4 Video Verification Model is defined in ISO/IEC JTC llSC 29/WG 11, "MPEG-4 Video Verification Model 17.0," ISO/IEC JTCllSC29/WG11 N3515, Beijing, China, July 2000, the contents of which are incorporated herein in their entirety. In an MPEG-2 system, a frame is encoded into multiple blocks, and each block is encoded into six macroblocks". Also, Katsavounidis, in column 7, lines 20-35, describes "In an MPEG-4 system, a frame in a sequence of frames is further encoded into a number of video objects known as video object planes (VOPs)". In addition, Katsavounidis, in column 8, lines 40-50, describes "The process conceals the error in the missing macroblock by linearly interpolating data from an upper macroblock that is intended to be displayed "above" the missing macroblock in the image, and from a lower macroblock that is intended to be displayed "below" the missing macroblock in the image".

Chien describes "error concealment apparatus for replacing damaged or lost two dimensional blocks of pixel values in reproduced images". Chien, in column 1, lines 23-53, describes "The surrounding pixels are examined to determine the existence of image edges (gradients) and thereafter interpolation is performed to generate a block of pixel values to replace the lost or damaged block of pixel values". Further, Chien, in column 4, lines 20-35, describes "An example of edge evaluation, to be described below, determines dominant edges in the area surrounding the lost block B, and dominant edges in the collocated block TR, and also examines the correlation between the edges in blocks B and TR". Furthermore, Chien, in column 5, lines 20-40, describes "Appropriate image data is accessed from the working memory to perform the edge or gradient analysis for the image area surrounding the lost block. For example, if the lost block contains a matrix of N by N pixels, a superblock of 2N by 2N pixels, with the lost block in its center, may be accessed from memory 41. The lost pixel data may be substituted with a mid gray value prior to analysis". Moreover, Chien, in column 6, lines 65 to column 7, lines 18, describes "An exemplary motion analysis generates six motion vector correlation measures and forms the weighted average of the six as a directional magnitude correlation measure r.sub.m.

The motion vectors utilized in the analysis are the vectors associated with the blocks designated TOP-1, TOP, TOP+1, BOT-1, BOT, and BOT+1, located above and below the missing block as shown in FIG. 6". Also Chien, in column 9, lines 40-60, describes "If r is greater than TH1 a substitute block for the bad or missing block is generated by temporal replacement. This is performed in the controller 40, by substituting the block TR for the missing block in the display portion of memory 22, for the current frame period. If the value r is less than TH2, then concealment is by substituting a spatially interpolated block. This may be performed by accessing the superblock from the working memory 41, and applying this pixel matrix to the spatial interpolator 44. The interpolator 44 may generate a substitute block by known interpolation methods, including directional or bidirectional spatial interpolation in accordance with the directions of the dominant image gradient or gradients".

In contrast, amended independent claims 1 and 26 recite "detecting a channel error by locating a damaged macroblock ($P_{x,y}$) in multiple macroblocks of a video frame using header information by a video decoder", "isolating the detected channel error to a few macroblocks around the located damaged macroblock to reduce data loss and improve video quality", wherein isolating the detected channel error comprises: "estimating the damaged macroblock by using undamaged macroblocks substantially surrounding a boundary of the damaged macroblock in the video frame by the video decoder, wherein the undamaged macroblocks include 1 to 4 undamaged macroblocks ($P_{x,y-1}$, $P_{x+1,y}$, $P_{x,y+1}$, and $P_{x-1,y}$), and wherein estimating the damaged macroblock includes estimating the damaged macroblock by using a weighted linear interpolation of the undamaged macroblocks surrounding the damaged macroblock", and "replacing the damaged macroblock with the estimated damaged macroblock to conceal the error in the damaged macroblock by the video decoder". Support for the amendment can be found in canceled claims 4 and 27, Figure 3 and in page 6, lines 5-25 of the specification.

Further in contrast, amended independent claims 17 and 29 recite "a header decoding module parses a video frame to get header information and multiple macroblocks", "an error recovery module detects a channel error by locating a damaged macroblock ($P_{x,y}$) in the multiple macroblocks using the header information" and "a spatial data error concealment module estimates the damaged macroblock by using undamaged macroblocks substantially surrounding a boundary of the damaged macroblock and replaces the damaged macroblock with

the estimated damaged macroblock to conceal the channel error in the damaged macroblock, wherein the undamaged macroblocks include 1 to 4 undamaged macroblocks ($P_{x, y-1}$, $P_{x+1, y}$, $P_{x, y+1}$, and $P_{x-1, y}$), and wherein the spatial data error concealment module estimates the damaged macroblock by using a weighted linear interpolation of the undamaged macroblocks surrounding the damaged macroblock". Support for the amendment can be found in canceled claims 19 and 31, Figure 3 and in page 6, lines 5-25 of the specification.

Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "detecting a channel error by locating a damaged macroblock ($P_{x, y}$) in multiple macroblocks of a video frame using header information by a video decoder", "isolating the detected channel error to a few macroblocks around the located damaged macroblock to reduce data loss and improve video quality", wherein isolating the detected channel error comprises: "**estimating the damaged macroblock by using undamaged macroblocks substantially surrounding a boundary of the damaged macroblock in the video frame by the video decoder, wherein the undamaged macroblocks include 1 to 4 undamaged macroblocks ($P_{x, y-1}$, $P_{x+1, y}$, $P_{x, y+1}$, and $P_{x-1, y}$)**, and wherein estimating the damaged macroblock includes **estimating the damaged macroblock by using a weighted linear interpolation of the undamaged macroblocks surrounding the damaged macroblock", and "replacing the damaged macroblock with the estimated damaged macroblock to conceal the error in the damaged macroblock by the video decoder**" as recited in claims 1 and 26.

Further, Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "a header decoding module parses a video frame to get header information and multiple macroblocks", "an error recovery module detects a channel error by locating a damaged macroblock ($P_{x, y}$) in the multiple macroblocks using the header information", and "**a spatial data error concealment module estimates the damaged macroblock by using undamaged macroblocks substantially surrounding a boundary of the damaged macroblock** and replaces the damaged macroblock with the estimated damaged macroblock to conceal the channel error in the damaged macroblock, **wherein the undamaged**

macroblocks include 1 to 4 undamaged macroblocks ($P_{x,y-1}$, $P_{x+1,y}$, $P_{x,y+1}$, and $P_{x-1,y}$), and wherein **the spatial data error concealment module estimates the damaged macroblock by using a weighted linear interpolation of the undamaged macroblocks surrounding the damaged macroblock**" as recited in claims 17 and 29.

For the above reasons, amended independent claims 1, 17, 26, and 29 should be found allowable over Katsavounidis and Chien references, and such action is respectfully requested.

Claims 3, 5, 18, 20 28, and 30 depend directly or indirectly from a respective one of amended independent claims 1, 17, 26, and 29, all of which are patentable for the reasons presented above.

Katsavounidis, in column 8, lines 10-20, describes "The errors can correspond to a variety of problems or unavailability including a loss of data, a corruption of data, a header error, a syntax error, a delay in receiving data, and the like. Advantageously, the process of FIG. 3 is relatively unsophisticated to implement and can be executed by relatively slow decoders". Further, Katsavounidis, in column 8, lines 65 to column 9, lines 22, describes "When the missing macroblock is at the upper boundary of the image, the topmost line of the lower macroblock is used as lb. If the lower macroblock is also missing, the topmost line of the next-lower macroblock in the image is used as lb, and so forth, if further lower macroblocks are missing. If all the lower macroblocks are missing, a gray line is used as lb. When the missing macroblock is at the lower boundary of the image or the lower macroblock is missing, lb, the lowermost line of the upper macroblock, is also used as lt. When the missing macroblock is neither at the upper boundary of the image nor at the lower boundary of the image, and interpolation between the upper macroblock and the lower macroblock is not applicable, one embodiment of the invention replaces the missing macroblock with gray pixels (Y=U=V=128 value)". Furthermore, Katsavounidis, in column 8, lines 40-50, describes "The process conceals the error in the missing macroblock by linearly interpolating data from an upper macroblock that is intended to be displayed "above" the missing macroblock in the image, and from a lower macroblock that is intended to be displayed "below" the missing macroblock in the image". Moreover, Katsavounidis, in column 8, lines 50-60, describes "the process can vertically linearly interpolate using a line denoted lb copied from the upper macroblock and a line denoted lt copied from the

lower macroblock. In one embodiment, the process uses the lowermost line of the upper macroblock as lb and the topmost line of the lower macroblock as lt".

Chien, in column 1, lines 23-53, describes "The surrounding pixels are examined to determine the existence of image edges (gradients) and thereafter interpolation is performed to generate a block of pixel values to replace the lost or damaged block of pixel values". Further, Chien, in column 4, lines 20-35, describes "Two or three types of image evaluation are executed 32, to determine the concealment mode to be performed. A first evaluation is for image motion. An example of image motion evaluation, to be described below, looks at the magnitude and relative correlation of the motion vectors for the blocks above and below the missing block. A second evaluation is of dominant image features such as edges or gradients. An example of edge evaluation, to be described below, determines dominant edges in the area surrounding the lost block B, and dominant edges in the collocated block TR, and also examines the correlation between the edges in blocks B and TR".

In contrast, amended independent claim 6 recites "detecting an error by locating a damaged macroblock ($P_{x, y}$) in multiple macroblocks in a video frame using header information, global information, and/or video packet information in the video frame by a video decoder", "estimating a pixel value for each pixel in the damaged macroblock by computing a weighted sum of the associated pixel values in each of the undamaged macroblocks surrounding the damaged macroblock by the video decoder, wherein, in estimating, the undamaged macroblocks surrounding the damaged macroblock include about 1 to 4 undamaged macroblocks ($P_{x, y-1}$, $P_{x+1, y}$, $P_{x, y+1}$, and/or $P_{x-1, y}$)", and "copying the estimated pixel value of each pixel in the damaged macroblock to conceal the error in the damaged macroblock by the video decoder". Support for the amendment can be found in canceled claim 7, Figure 3 and in page 6, lines 5-25 of the specification.

Further in contrast, amended independent claim 21 recites "a header decoding module to parse a video frame to get header information, video packet information, and multiple macroblocks", "an error recovery module to detect an error in a damaged macroblock ($P_{x, y}$) in the multiple macroblocks of the video frame using the header information and/or the video packet information", and "a spatial data error concealment module to estimate a pixel value for each pixel in the damaged macroblock by computing a weighted sum of associated pixel values

in each of undamaged macroblocks surrounding the damaged macroblock, wherein the spatial data error concealment module to copy the estimated pixel value of each pixel in the damaged macroblock to conceal the error in the damaged macroblock, wherein the undamaged macroblocks surrounding the damaged macroblock include about 1 to 4 undamaged macroblocks ($P_{x,y-1}$, $P_{x+1,y}$, $P_{x,y+1}$, and/or $P_{x-1,y}$) substantially surrounding the damaged macroblock". Support for the amendment can be found in canceled claim 22, Figure 3 and in page 6, lines 5-25 of the specification.

Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "detecting an error by locating a damaged macroblock ($P_{x,y}$) in multiple macroblocks in a video frame using header information, global information, and/or video packet information in the video frame by a video decoder", "**estimating a pixel value for each pixel in the damaged macroblock by computing a weighted sum of the associated pixel values in each of the undamaged macroblocks surrounding the damaged macroblock by the video decoder, wherein, in estimating, the undamaged macroblocks surrounding the damaged macroblock include about 1 to 4 undamaged macroblocks ($P_{x,y-1}$, $P_{x+1,y}$, $P_{x,y+1}$, and/or $P_{x-1,y}$)**", and "copying the estimated pixel value of each pixel in the damaged macroblock to conceal the error in the damaged macroblock by the video decoder" as recited in claim 6.

Further, Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "a header decoding module to parse a video frame to get header information, video packet information, and multiple macroblocks", "an error recovery module to detect an error in a damaged macroblock ($P_{x,y}$) in the multiple macroblocks of the video frame using the header information and/or the video packet information", and "**a spatial data error concealment module to estimate a pixel value for each pixel in the damaged macroblock by computing a weighted sum of associated pixel values in each of undamaged macroblocks surrounding the damaged macroblock, wherein the spatial data error concealment module to copy the estimated pixel value of each pixel in the damaged macroblock to conceal the error in the damaged macroblock, wherein the undamaged**

macroblocks surrounding the damaged macroblock include about 1 to 4 undamaged macroblocks ($P_{x, y-1}$, $P_{x+1, y}$, $P_{x, y+1}$, and/or $P_{x-1, y}$) substantially surrounding the damaged macroblock" as recited in claim 21.

For the above reasons, amended independent claims 6 and 21 should be found allowable over Katsavounidis and Chien references, and such action is respectfully requested.

Claims 8, 10, 11, and 23 depend directly or indirectly from a respective one of amended independent claims 6 and 21, all of which are patentable for the reasons presented above.

Katsavounidis, in column 8, lines 10-20, describes "The errors can correspond to a variety of problems or unavailability including a loss of data, a corruption of data, a header error, a syntax error, a delay in receiving data, and the like. Advantageously, the process of FIG. 3 is relatively unsophisticated to implement and can be executed by relatively slow decoders". Further, Katsavounidis, in column 10, lines 30-65, describes "When both the upper macroblock 404 and the lower macroblock 406 are available and include motion vectors, the illustrated process uses the third upper motion vector 424 as the first missing motion vector 410, the fourth upper motion vector 426 as the second missing motion vector 412, the first lower motion vector 430 as the third missing motion vector 414, and the second lower motion vector 432 as the fourth missing motion vector 416". Also, Katsavounidis, in column 8, lines 50-60, describes "process interpolates or spatially conceals the error in the intra-coded macroblock, termed a missing macroblock. In one embodiment, the process conceals the error in the missing macroblock by linearly interpolating data from an upper macroblock that is intended to be displayed "above" the missing macroblock in the image, and from a lower macroblock that is intended to be displayed "below" the missing macroblock in the image". Furthermore, Katsavounidis, in column 8, lines 50-60, describes "the process can vertically linearly interpolate using a line denoted lb copied from the upper macroblock and a line denoted lt copied from the lower macroblock. In one embodiment, the process uses the lowermost line of the upper macroblock as lb and the topmost line of the lower macroblock as lt". Moreover, Katsavounidis, in column 9, lines 35-45, describes "the process reconstructs the missing macroblock from the redundant motion vector and the frame at time t-2. Otherwise, the process proceeds from the second decision block 312 to a third decision block 320".

Chien, in column 3, lines 60 to column 4, lines 13, describes "The data from element 30 is data which surrounds the lost block B. The data, TR, from element 31, preferably is a temporal prediction of the lost block using motion vectors from the block vertically above the lost block to determine the predicted values. Alternatively, block TR may represent data from a prior frame collocated with block B. It should be realized that the blocks to the right and left of block B may also be lost or missing if they were contained in the same transport block. However, even if this were the case, the block to the left of block B may be a replacement block if the system performs error concealment from left to right, in which case only the block to the right of block B will also be missing. The data from elements 30 and 31 are evaluated to determine the mode of error concealment to be executed for the missing block B". Further, Chien, in column 4, lines 14-35, describes "A first evaluation is for image motion. An example of image motion evaluation, to be described below, looks at the magnitude and relative correlation of the motion vectors for the blocks above and below the missing block. A second evaluation is of dominant image features such as edges or gradients. An example of edge evaluation, to be described below, determines dominant edges in the area surrounding the lost block B, and dominant edges in the collocated block TR, and also examines the correlation between the edges in blocks B and TR. A third evaluation takes a general measure of image differences between an area of the current frame being decoded and a collocated area of a prior frame".

In contrast, amended independent claim 12 recites "detecting a channel error by locating a damaged macroblock in multiple macroblocks in a current video frame using header information, global information, and/or video packet information in the video frame by a video decoder", "reconstructing the damaged macroblock by estimating a motion vector of the damaged macroblock using motion vectors of undamaged macroblocks surrounding the damaged macroblock by the video decoder", wherein reconstruction of the damaged macroblock by estimating the motion vector of the damaged macroblock using the motion vectors of the undamaged macroblocks surrounding the damaged macroblock comprises: "estimating the motion vector of the damaged macroblock in the current video frame", "estimating a motion vector of a macroblock located substantially adjacent and above the damaged macroblock", "estimating a motion vector of a macroblock located substantially below the damaged macroblock", "estimating a motion vector of a macroblock located substantially adjacent, above,

and left of the damaged macroblock", "checking for error in the macroblock located substantially below the damaged macroblock", and "if there is an error in the macroblock located substantially below the damaged macroblock, then estimating the motion vector of the macroblock located substantially below the damaged macroblock by assigning a motion vector of a macroblock located about 2 rows below the damaged macroblock", and "copying the reconstructed damaged macroblock to conceal the error in the damaged macroblock by the video decoder". Support for the amendment can be found in claim 15, figure 4, and in page 8, lines 4-11 of the specification.

Further in contrast, amended independent claim 24 recites "a header decoding module parses a video frame to get header information and multiple macroblocks", "an error recovery module detects a channel error by locating a damaged macroblock in the multiple macroblocks using the header information, global information, and/or video packet information in the video frame", "a spatial data error concealment module obtains motion vectors of undamaged macroblocks surrounding the damaged macroblock, wherein the spatial error concealment module estimates a motion vector of the damaged macroblock using the motion vectors of undamaged macroblocks, wherein the spatial data error concealment module reconstructs the damaged macroblock using the estimated damaged macroblock, wherein the spatial data error concealment module estimates the motion vector of the damaged macroblock using the motion vectors of the undamaged macroblocks located in about two rows that are substantially adjacent and below to the damaged macroblock", and wherein reconstruction of the damaged macroblock by estimating the motion vector of the damaged macroblock comprises: "estimating the motion vector of the damaged macroblock in the current video frame", "estimating a motion vector of a macroblock located substantially adjacent and above the damaged macroblock", "estimating a motion vector of a macroblock located substantially below the damaged macroblock", and "estimating a motion vector of a macroblock located substantially adjacent, above, and left of the damaged macroblock", and "copying the reconstructed damaged macroblock to conceal the error in the damaged macroblock". Support for the amendment can be found in canceled claim 25, figure 4, and in page 7, lines 20-27 of the specification.

Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "detecting a channel error by locating a damaged

macroblock in multiple macroblocks in a current video frame using header information, global information, and/or video packet information in the video frame by a video decoder", "reconstructing the damaged macroblock by estimating a motion vector of the damaged macroblock using motion vectors of undamaged macroblocks surrounding the damaged macroblock by the video decoder", wherein reconstruction of the damaged macroblock by estimating the motion vector of the damaged macroblock using the motion vectors of the undamaged macroblocks surrounding the damaged macroblock comprises: "estimating the motion vector of the damaged macroblock in the current video frame", "**estimating a motion vector of a macroblock located substantially adjacent and above the damaged macroblock**", "**estimating a motion vector of a macroblock located substantially below the damaged macroblock**", "**estimating a motion vector of a macroblock located substantially adjacent, above, and left of the damaged macroblock**", "**checking for error in the macroblock located substantially below the damaged macroblock**", and "**if there is an error in the macroblock located substantially below the damaged macroblock, then estimating the motion vector of the macroblock located substantially below the damaged macroblock by assigning a motion vector of a macroblock located about 2 rows below the damaged macroblock**", and "copying the reconstructed damaged macroblock to conceal the error in the damaged macroblock by the video decoder" as recited in claim 12.

Further, Applicants respectfully assert that Katsavounidis and Chien references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the applicants' invention, such as "a header decoding module parses a video frame to get header information and multiple macroblocks", "an error recovery module detects a channel error by locating a damaged macroblock in the multiple macroblocks using the header information, global information, and/or video packet information in the video frame", "a spatial data error concealment module obtains motion vectors of undamaged macroblocks surrounding the damaged macroblock, wherein the spatial error concealment module estimates a motion vector of the damaged macroblock using the motion vectors of undamaged macroblocks, wherein the spatial data error concealment module reconstructs the damaged macroblock using the estimated damaged macroblock, **wherein the spatial data error concealment module estimates the motion vector of the damaged macroblock using the motion vectors of the**

undamaged macroblocks located in about two rows that are substantially adjacent and below the damaged macroblock, and wherein reconstruction of the damaged macroblock by estimating the motion vector of the damaged macroblock comprises: "estimating the motion vector of the damaged macroblock in the current video frame", "**estimating a motion vector of a macroblock located substantially adjacent and above the damaged macroblock**", "**estimating a motion vector of a macroblock located substantially below the damaged macroblock**", and "**estimating a motion vector of a macroblock located substantially adjacent, above, and left of the damaged macroblock**"", and "copying the reconstructed damaged macroblock to conceal the error in the damaged macroblock" as recited in claim 24.

For the above reasons, amended independent claims 12 and 24 should be found allowable over Katsavounidis and Chien references, and such action is respectfully requested.

Claims 13 and 16 depend directly or indirectly from a respective one of amended independent claims 12 and 24, all of which are patentable for the reasons presented above.

For at least the reason presented above, Applicants respectfully request that the 35 USC § 103(a) rejection of claims 1, 3, 5, 6, 8, 10-13, 16-18, 20, 21, 23, 24, 26, and 28-30 be withdrawn.

Allowable Subject Matter

Claims 9, 15, were directed towards allowable subject matter and would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 101, set forth in this Office action, and if further rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have amended claims 9 and 15 accordingly. Therefore, claims 9 and 15 should be found allowable and such action is respectfully requested.

Conclusion

Applicants respectfully submit that the claims 1, 3, 5, 6, 8-13, 15-18, 20, 21, 23, 24, 26, and 28-30 are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney (603-888-7958) to facilitate prosecution of this application.

Respectfully submitted,

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